Exhibit 21

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

U. S. COMMODITY FUTURES TRADING COMMISSION, Plaintiff, - against - WILLIAM BYRNES, CHRISTOPHER CURTIN, THE NEW YORK MERCANTILE EXCHANGE, INC., and RON EIBSCHUTZ, Defendants.	CIVIL ACTION NO. 13-CV-1174 (VSB)

REBUTTAL EXPERT REPORT OF
ROBERT SILVAY

March 17, 2016

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1. I have previously submitted an expert report in this case opining that the information discussed by Christopher Curtin and Ron Eibschutz was generally available to the trading public and was not, and could not have been, important to a reasonable trader in deciding to trade any commodity interest. Curtin's counsel has requested that I submit a report in response to the report of Prof. Hendrik Bessembinder, the expert witness hired by the U.S. Commodity Futures Trading Commission.

2. I reserve the right to update, revise, and supplement my report, and to form additional opinions, should I be provided with additional information. I also reserve the right to respond to any expert opinions put forward by the CFTC in response to the opinions presented in my report.

3. The Bessembinder report proceeds from the purely theoretical premises that are available to its author, who appears to have never traded or brokered trades in the commodities industry. In so doing, it fails to grasp the context for the calls identified in Exhibit B to the amended complaint (the "Calls"), and so reaches incorrect – indeed, implausible – conclusions. Moreover, Prof. Bessembinder makes basic errors in describing the brokered over-the-counter ("OTC") energy derivatives market, which further undermine his conclusions.

There Are No Uniquely "Skilled" Traders.

4. Prof. Bessembinder claims that information about a trade might be important to a reasonable investor if it involved a "skilled" trader, whose trades and strategies would be worth mimicking (¶¶ 101-103). However, based on my years of experience as a broker and trader in the OTC energy derivatives market, there is no significant difference in skill level among the traders in that market. Unlike the stock market, where millions of amateur investors trade every day, the OTC energy derivatives market is a small, professional market – retail

investors, because of the complexity of the market and the amount of capital required, do not participate.

5. Prof. Bessembinder points to two popular-press articles to show that Centaurus' John Arnold and the employees of Vitol are skilled traders. No doubt, both Centaurus and Vitol were highly successful trading enterprises during the time of the Calls. Still, neither one was so good that others would refuse to trade with them – for every single trade they made, another trader thought it better to take the opposite position than to mimic. What's more, Vitol and Centaurus may trade with each other. In such a case, what is a trader attempting to mimic the skilled to do?

Guessing Trading Strategies Based on the Calls Is Impossible.

6. Prof. Bessembinder argues that, theoretically, the Calls provide enough information to infer trading strategies, which might allow an investor to trade ahead of the execution of those strategies (¶ 11). What he doesn't do, however, is actually identify any trading strategies that can be inferred from any of the Calls. The reason is simple: it cannot be done. As noted in my initial report (¶ 55), the information in the Calls was too fragmented to be useful – one cannot tell whether a given trade opens or closes a position, whether it is part of a larger structure involving the same or other products, or what the impetus for the trade was. Put another way, each trade discussed on the calls could be part of many different strategies, based on entirely different expectations of future market movement.

7. To try to get around the fragmentation issue, Prof. Bessembinder points out that over the years, Eibschutz's calls with the ClearPort Facilitation Desk mention one trading entity, Vitol, more than twenty times (¶ 103). But Vitol employs dozens of traders, many of whom trade energy derivatives. Each Vitol trader has his own independent trading mandate,

whether hedging physical positions, pursuing arbitrages, or simply speculating based on his individual view of the market. Since the Calls do not generally identify the Vitol trader who made a specific trade, there's no way to tell which trading portfolio contains which Vitol trades, let alone infer the strategies motivating the trades.

8. To see that inferring trading strategies from the Calls is impossible, consider the call bearing Bates number 13CIV1174-CFTC-0006562, in which Plains traded a twelve-month calendar strip of one-month crude oil calendar spread put options for 2009, 500 contracts per month, each at a strike price of negative 75 cents, with Vitol. As it happens, the call does not make clear which of the parties was the buyer and which was the seller, another reason why it could not have been used to infer a trading strategy or anything else significant about the parties. However, regardless of whether Plains was the buyer or the seller, it might have made this trade for any number of reasons.

9. First, consider the reasons Plains might have bought these spread options. If Plains has exposure to the price of the underlying crude oil (and it does, since it provides pipeline and other infrastructure services to energy companies), these options act as a hedge in case crude oil spreads increase in coming months. If, on the other hand, Plains earlier sold spread options, and if Plains now believes the value of the options is likely to rise (for example, because crude oil spreads will be decreasing), Plains might be buying these spread options to close out or reduce that position. If Plains believes that volatility is increasing, it might be buying these options as part of a larger structure – perhaps combining these options with the purchase of bullish crude oil futures spreads for the same months.

10. Now, consider the reasons that Plains might have sold these spread options. First, Plains might have sold them simply to collect the premium. Alternately, if Plains

had earlier bought spread options, and if Plains now believes the value of the options is likely to fall (for example, because crude oil spreads will be increasing), Plains might be selling these options to close out or reduce that position. Finally, if Plains believes that volatility is falling, it might be selling these options as part of a larger structure – perhaps combining these options with selling bearish crude oil futures spreads for the same months. Thus, it should be clear that the trade alone says nothing about Plains' overall trading strategy.

<u>Average Daily Volume Traded and Notional Value Are Not Useful Measures.</u>

11. Prof. Bessembinder says that "information disclosures regarding specific trades will tend to be more important if the trades involved are larger" (¶ 17), and tries to determine which trades are important by looking at the average daily volume cleared on NYMEX over 2008-2010 in some of the products mentioned on the Calls. However, this measure is misleading. NYMEX-cleared trades are only one part of the larger OTC market for these products – at the time, a growing share of the market was cleared on ICE Clear, and an even larger share was not cleared at all. By focusing on NYMEX-cleared trades for individual options contracts in his calculations, Prof. Bessembinder inflated the share of average daily volume of the trades discussed in the Calls.

12. Perhaps even more importantly, as mentioned in my initial report (¶¶ 57-58), it is misleading to treat the products traded in this case as distinct markets. The value of an options contract on a futures contract on crude oil is driven almost entirely by the value of the underlying crude oil; focusing on one option to the exclusion of all other crude oil products is not a useful way to describe a trade's relative importance in the market. Of course, the volume of each trade discussed in the Calls is a negligible portion of the entire crude oil derivatives market.

13. Prof. Bessembinder also tries to assess the importance of trades by looking at their notional value. However, in all my years in the market, I have never seen anyone use notional value in analyzing options; generally, options traders think of the magnitude of their trades in terms of risk measures such as Value-at-Risk or any of several metrics known as "the Greeks." The problem with Prof. Bessembinder's use of notional values for options is that he treats an option on a futures contract the same as the underlying futures contract, which misses the whole point of buying an option – options need not be (and often are not) exercised. Prof. Bessembinder ignores this, treating options as though they are worth the same as the underlying futures.

14. Prof. Bessembinder's use of notional value miscalculates the impact, and greatly inflates the value, of the trades. He compounds the errors in his notional value calculations by double-counting commodities for which a spread option (the right to simultaneously take long and short futures positions in two separate months in the same commodity) is purchased. Clearly, a contract giving a trader the right to purchase a volume (say, six hundred thousand barrels) of crude oil in December, then sell that volume again the following December, is a contract dealing with, at most, six hundred thousand barrels of crude oil. Yet Prof. Bessembinder treats all such contracts as dealing with 1.2 million barrels (e.g., ¶ 65).

15. The unsoundness of Prof. Bessembinder's calculations is apparent from his estimation of the value of the trade discussed in call 13CIV1174-CFTC-0006505 as $4 billion (¶ 61). The entity making this trade is Plains, which has a market capitalization of around $8.6 billion.[1] Anyone with experience in the industry would know that it is implausible that a firm would risk half of the company's total value on a single trade.

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[1] Source: http://ir.paalp.com/. Note that it is unclear from the call whether the Plains entity involved in the trade is Plains All-American Pipeline, L.P. (with a market capitalization of $8.6 billion as of March 15, 2016), or Plains GP

<u>Bessembinder Is Not Familiar with the OTC Energy Derivatives Market.</u>

16. Beyond the errors described earlier, the Bessembinder report contains a number of statements that reflect an unfamiliarity with the brokered OTC energy derivatives market. For example, Prof. Bessembinder says that traders use the OTC market to keep trades confidential (¶ 46). In reality, the best venue to trade energy derivatives confidentially is Globex, which is entirely anonymous, even as between counterparties. In the brokered OTC market, on the other hand (as discussed in my initial report (¶¶ 32-43)), at least the broker – and likely the counterparty, and perhaps all other traders to whom the broker shopped the trade, and those traders' other brokers – will know the details of a trade. Similarly, Prof. Bessembinder claims that most traders are invested in keeping their trades confidential (¶ 13), but the existence of a vibrant brokered OTC market is evidence to the contrary.

17. Prof. Bessembinder identifies as important (¶ 80) a call in which Curtin discusses a trade from the previous day in the CD (one-day option on crude oil futures) contract (13CIV1174-CFTC-0018235). But that contract is only traded for one day – by the time of the call, the contract that was traded the previous day had been settled and delisted, never to be traded again. The same is true of the discussion (13CIV1174-CFTC-0018184) of the KD (one-day option on natural gas futures) contract identified by Prof. Bessembinder as important (¶ 79), also the day after it was traded. Market participants do not systematically transact in these contracts – they are generally used to fill one-off trading needs. Clearly, trades about a contract that can no longer be traded and will not be traded in similar fashion in the future are uninformative, regardless of their size.

Holdings (with a market capitalization of $1.7 billion as of March 15, 2016, per http://finance.yahoo.com/q?s=PAGP).

18. Prof. Bessembinder also considers significant certain statements on the Calls identifying products in which entities traded (¶ 84). But the statements (confirming that Kinder Morgan trades crude oil and that DRW traded a calendar strip) would not have been informative to any trader in the energy markets. Kinder Morgan is an energy infrastructure company, providing pipelines and storage for petroleum products. Of course it trades crude oil – everyone in crude oil knows that. Similarly, DRW is perhaps the largest options market-maker for all energy products. Of course it trades calendar strips – it's a market maker, it trades everything, everyone in the market knows it. That Eibschutz (and Prof. Bessembinder) did not know these things says more about his familiarity with the market than it does about the importance of the information.

Robert Silvay

3/17/16

Date

CERTIFICATION

This is to certify that a true and correct copy of the foregoing was served via electronic mail and First Class Mail, postage prepaid, on this 17th day of March, 2016, to:

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